Date: Tue, 25 Apr 2006 15:27:50 -0400

Print | Close

Subject:

Helitowcart- Autres ajustements

From:

Helitowcart by Vanair Inc.

To: Cc: glapointe@amecusinage.com lbarbeau@sympatico.ca

Bonjour Guillaume,

Je sais que Lucien t'a parlé au sujet des noix pour les iceblade. Voici info additionnelle de moi:

1) Svp ajouter un washer entre les noix d'installation et le pad aux positions d'attachement des iceblade sur le dessin isométrique (je vois que le croquis fait par Bruno hier ne les indique pas).

équipements en

2) Maîtrise du procédé de soudage: Nous sommes responsables au niveau légal des

vol....Il est extrêmement important que nous ayons une démonstration de maîtrise des activités de

soudage impliquées...

i.e. Main-d'oeuvre, Procédures, Équipements....Que pouvez-vous me donner comme preuves de qualification du personnel soudeur, des méthodes de soudage et de la gestion des équipements? (Je

veux pas t'en ajouter, mais tout ce que tu as je serais heureuse de le savoir).

2.1) Soudage 1: Je t'ai transmis les informations requises pour les specs en regard au soudage ce matin. Il faut s'assurer qu'elles soient respectées par ton soudeur. S'assurer qu'il suit cette recette, si non nous aviser.

2.2) Soudage 2: Il faut s'assurer que ton soudeur possède ses cartes du bureau canadien de soudage ou une qualification équivalente... Est-ce le cas? Il faut me démontrer la maîtrise procédé. En fait...il faudra que je sois certaine que le soudeur impliqué possède des qualifications...(i.e. est un professionnel du domaine). Que peux tu me confirmer à ce

\*\*\*On pourra se reparler de ce sujet la semaine prochaine. C'est pas une urgence.

Salutations, Nathalie

Sales & Service Vanair inc. 860 Marie-Victorin, St-Nicolas, Levis Quebec, Canada, G7A 3S9 Tel: +1.418.561.4512, Fax: +1.418.836.2291 info@helitowcart.com www.helitowcart.com

ECHANGES PRÉCIM.

### Nathalie Barbeau

From:

Bruno Martel [bmartel@orthofab.com]

Sent: To: April 25, 2006 9:14 AM 'nbarbeau@qualiso.com'

Subject:

SS 304

Filler material (métal d'apport)

MGSS308L

Specs: AWS A-5.9/ASME SFA-5.9

Class: 308L Dia: 1/16"

:-)

Bruno Martel, ing/P.Eng. (ext. 241)

ORTHOFAB, 2160 DeCelles Street, Quebec city, PQ, Canada G2C 1X8, Tél.: 418.847.1480

Fax.: 418.847.5378

www.: www.orthofab.com <http://www.orthofab.com/> E-Mail :

bmartel@orthofab.com <mailto:bmartel@orthofab.com>

Toeroud Co

Date: Tue, 18 Apr 2006 14:31:30 -0400

Print | Close

Subject: RE: Helitowcart- Logo

From: Guillaume Lapointe To: 'Helitowcart by Vanair Inc.'

Bonjour Nathalie, voici les dessins avec les modifications demandées, vérifie si tous est correct, si non, appel moi pour faire les modifications.

Merci.

Guillaume Lapointe Technicien de production

(418) 878-4133, poste 223

(418) 878-2536

----Message d'origine----

De : Helitowcart by Vanair Inc. [mailto:info@helitowcart.com]

Envoyé: Tuesday, April 18, 2006 1:52 PM

À : glapointe@amecusinage.com

Objet : Helitowcart- Logo

Bonjour Guillaume,

Merci pour les fichiers.

Le spécialiste qui nous prépare nos documents pour demander les

autorisations gouvernementales pour

nos bearpaw nous a demandé ce matin que nos dessins aient notre logo et nos coordonnées. Lucien me

dit qu'il a parlé à m. Doyon de chez vous et que ceci a été accepté. Je joint donc un document word

sur lequel tu peut prendre le logo et nos coordonnées. Si possible nous

faire les modifications

dès aujourd'hui, je rencontre le spécialiste en question en fin

d'après-midi....(j'ai rendez-vous à

15:00).

Merci infiniment!

Nathalie

Sales & Service

Vanair inc.

860 Marie-Victorin, St-Nicolas, Levis

Quebec, Canada, G7A 3S9

Tel: +1.418.561.4512, Fax: +1.418.836.2291

info@helitowcart.com

www.helitowcart.com

---- Original Message -----

From: Guillaume Lapointe

To: "'Helitowcart by Vanair Inc.'" <info@helitowcart.com>

Sent: Fri, 07 Apr 2006 15:16:44 -0400

Subject: RE: Bearpaw

Bonjour Nathalie, c'est normal que tu ne puisses pas ouvrir les fichiers dans le .Zip car c'est des fichiers 3D qui ne peuvent être lue que par des logiciels de conception 3D, le dessin de cette pièce tu l'as déjà en pdf. C'est ton père qui ma demandé ces fichiers pour la certification d'utilisation selon les normes du gouvernent et le fichier en .pdf qui était dans cet e-mail, c'est la fiche du matériel utilisé pour la fabrication du bearpaw.

Merci et

Bonne fin de semaine.

Guillaume Lapointe Technicien de production

(418) 878-4133, poste 223 (418) 878-2536

----Message d'origine----

De : Helitowcart by Vanair Inc. [mailto:info@helitowcart.com]

Envoyé: Friday, April 07, 2006 2:30 PM

À : glapointe@amecusinage.com

Objet : Re: Bearpaw

Bonjour Guillaume,

Merci pour les documents!

Je ne suis toutefois pas capable d'ouvrir les 3 fichiers que j'ai

dézippés...

Est-ce possible de me les envoyer en pdf pour que je puisse les imprimer?

Merci! Nathalie

Sales & Service

Vanair inc.

860 Marie-Victorin, St-Nicolas, Levis

Quebec, Canada, G7A 3S9

Tel: +1.418.561.4512, Fax: +1.418.836.2291

info@helitowcart.com

www.helitowcart.com

---- Original Message -----

From: Guillaume Lapointe

To: info@helitowcart.com

Sent: Thu, 06 Apr 2006 16:15:21 -0400

Subject: Bearpaw

Bonjour, voici les fichiers du bearpaw ainsi que les propriétés de l'UHMW

qui est utilisé dans la fabrication de cette pièce.

Merci.

Guillaume Lapointe

Technicien de production

(418) 878-4133, poste 223

(418) 878-2536

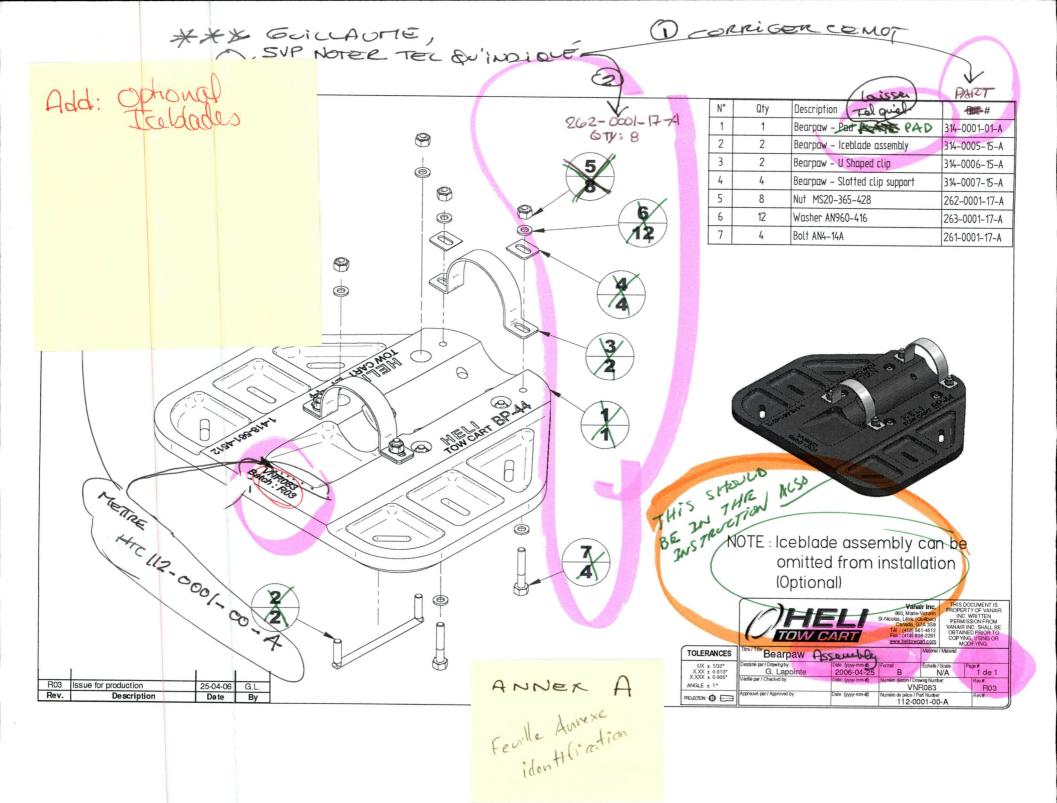
#### AVIS:

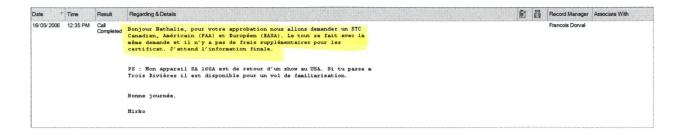
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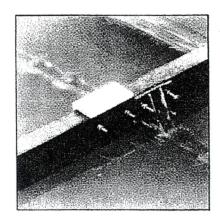
#### NOTICE:

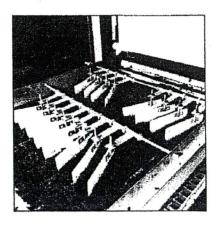
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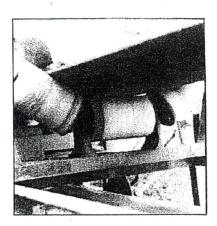




# Propriétés du UHMW TIVAR®







TIVAR flight wear shoes do not corrode, and outwear shoes made from metals, urothanes and other pleatics.

TIVAR is used in many OEM applica-tions to solve abrasion and corrosion problems. The scrapers on this belt press are of TIVAR.

Conveyor rollers lined with TIVAR reduce belt wear. Wet sludge doesn't build up as on conventional rollers.

		PHYSICAL PROPERTIES		
PROPERTY		TEST METHOD	UNIT	TYPICAL VALUE
Specific Gravity		ASTM D-792	g/cm <sup>3</sup>	0.94
Yield Strength	@73°F	ASTM D-63B	p.s.i.	3400
Ultimate Tensile Strength	@73°F	ASTM D-638	p.s.i.	6800
Break Elongation	@73°F	ASTM D-638	%	450
Yield Strength	@250°F	Stress Strain Diagram	p.s.i.	700
Ultimate Tensile Strength	@250°F	Stress Strain Diagram	p.s.i.	3300
Break Elongation	@250°F	Stress Strain Diagram	%	900
Hardness Rockwell "R" 5	Scale	ASTM D-785	-	64
Shore "D"	Scale	ASTM D-2240		67
Flexural Modulus of elasticit	ty	Bend Creep/1 min, value	p.s.i.	110,000
Shear Strength	•	ASTM D-732	p.s.i.	3500
Izod Impact + @23°c		ASTM D-256A	ft-lbs/in, notch	No Break
- @140°c		ASTM D-256A	1t-lbs/in. notch	No Break
Environmental Stress Crack	ing @Fso	ASTM D-1693 Mod	hrs.	6000
Water Absorption		ASTM D-670		NIL

COEFFICIENT OF FRICTION

UHMW Polymer has a lower coefficient of friction than glass. Together with its self-lubricating characteristics it is an ideal material for bearings, bushings, valves, wear strips or any application where sliding contact is encountered.

ousnings, valves, wear strips or any	application where sliding c	ontact is encountered.	
MATERIALS	STATIC	KINETIC	TEST METHOD
Mild Steel vs. Mild Steel	0.30-0.40	0.25-0.35	
Mild Steel vs. TIVAR-100	0.15-0.20	0.12-0.20	ASTM D-1894
TIVAR-100 vs. TIVAR-100	0.20-0.30	0.20-0.30	

	DEFORMAT	ION UNDE	R COMPRE	SSION - %			PERMANENT	DEFORMATION
	PSI		INITIAL LOADING				AFTER REMOVAL OF LOAD	
TEMP°F	COMPRESSION	10 MIN.	100 MIN.	1000 MIN.	1 DAY	56 DAYS	AFTER 1 MIN.	AFTER 24 HRS
	282	1.5	1.7	1.8	1.9	2.4	0.9	0.6
	570	2.4	2.5	2.7	3.0	4.0	1.8	1.2
68°	850	3.0	4.0	4.5	5.0	5.1	2.7	1.6
	1140	4.0	5.0	6.0	7.0	7.5	3.6	2.4
	1420	5.0	6.5	7.5	8.0	9.0	4.5	2.9
	1700	7.0	7.5	8.0	10.0	11.0	5.4	3.5

### CHEMICAL RESISTANCE

Hydrochloric acid (conc.) - no appreciable reaction up to 80°C

Nitric acid (20%) - less than 20% decrease in yield stress and ultimate tensile strength up to 80°C.

ulphuric acid (50%) - no appreciable reaction up to 80°C. Less than 20% decrease in properties at 75% oncentration,

Sodium hydroxide (caustic soda) - no appreciable reaction up to 80°C.

Sodium hypochlorate and most aqueous solutions of inorganic salts - no appreciable reaction up to 80°C.

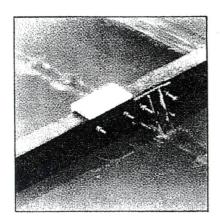
Hydrocarbons and halogenated hydrocarbons -limited resistance. Each application should be evaluated.

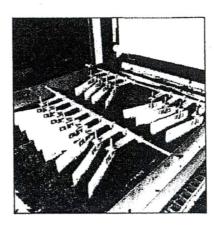
### www.plastiquepolyfab.com

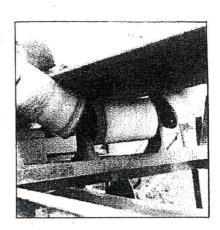
QUÉBEC: 1275, de la Jonquière, Québec, QC, Tél.: 418-682-0760 ou 1-866-682-0760

MONTRÉAL: 7600, Rte Transcanadienne, St-Laurent, QC, H4T 1A5 Tél.: 514-738-6817 ou 1-888-506-9600

# Propriétés du UHMW TIVAR®







Conveyor rollers lined with TIVAR reduce belt wear. Wet sludge doesn't build up as on conventional rollers.

			PHYSICAL PROPERTIES		
	PROPERTY		TEST METHOD	UNIT	TYPICAL VALUE
	Specific Gravity		ASTM D-792	g/cm <sup>3</sup>	0.94
1	Yield Strength	@73°F	ASTM D-638	p.s.i.	3400
1	Ultimate Tensile Strength	@73°F	ASTM D-638	p.s.i.	6800
4	Break Elongation	@73°F	ASTM D-638	9/6	450
1	Yield Strength	@250°F	Stress Strain Diagram	p.s.l.	700
i	Ultimate Tensile Strength	@250°F	Stress Strain Diagram	p.s.l.	3300
i	Break Elongation	@250°F	Stress Strain Diagram	%	900
	Hardness Rockwell "R" S	Scale	ASTM D-785	-	64
	Shore "D" S	Scale	ASTM D-2240		67
	Flexural Modulus of elasticit	У	Bend Creep/1 min. value	p.s.i.	110,000
	Shear Strength		ASTM D-732	p.s.i.	3500
	Izod Impact + @23°c		ASTM D-256A	ft-lbs/in, notch	No Break
1	- @140°c		ASTM D-256A	ft-lbs/in. notch	No Break
1	Environmental Stress Crack	ing @Fso	ASTM D-1693 Mod	hrs.	6000
1	Water Absorption		ASTM D-570		NIL

#### COEFFICIENT OF FRICTION

UHMW Polymer has a lower coefficient of friction than glass. Together with its self-lubricating characteristics it is an ideal material for bearings, bushings, valves, wear strips or any application where sliding contact is encountered.

namings, valves, wear simps of any s	phincallott where similify	comaci is encountered.	
MATERIALS	STATIC	KINETIC	TEST METHOD
Mild Steel vs. Mild Steel	0.30-0.40	0.25-0.35	
Mild Steel vs. TIVAR-100	0.15-0.20	0.12-0.20	ASTM D-1894
TIVAD 100 TIVAD 100	0.00.0.00	0.00.000	

	DEFORMAT	ION UNDE	R COMPRE	SSION - %			PERMANENT	DEFORMATION
	PSI		INITIAL LOADING AFTER REMO				OVAL OF LOAD	
TEMP°F	COMPRESSION	10 MIN.	100 MIN.	1000 MIN.	1 DAY	56 DAYS	AFTER 1 MIN.	AFTER 24 HRS
	282	1.5	1.7	1.8	1.9	2.4	0.9	0,6
	570	2.4	2.5	2.7	3.0	4.0	1.6	1.2
68°	850	3.0	4.0	4.5	5.0	5.1	2.7	1.6
	1140	4.0	5.0	6.0	7.0	7.5	3.6	2.4
	1420	5.0	6.5	7.5	8.0	9.0	4.5	2.9
	1700	7.0	7.5	8.0	10.0	11.0	5,4	3.5

#### **CHEMICAL RESISTANCE**

Hydrochloric acid (conc.) - no appreciable reaction up to 80°C

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ulphuric acid (50%) - no appreciable reaction up to 80°C. Less than 20% decrease in properties at 75% foncentration.

Sodium hydroxide (caustic soda) - no appreciable reaction up to 80°C.

Sodium hypochlorate and most aqueous solutions of inorganic salts - no appreciable reaction up to 80°C. Hydrocarbons and halogenated hydrocarbons -limited resistance. Each application should be evaluated.

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MONTRÉAL: 7600, Rte Transcanadienne, St-Laurent, QC, H4T 1A5 Tél.: 514-738-6817 ou 1-888-506-9600

# Ultra High Molecular Weight Polyethylene

# UHMWPE Typical Properties

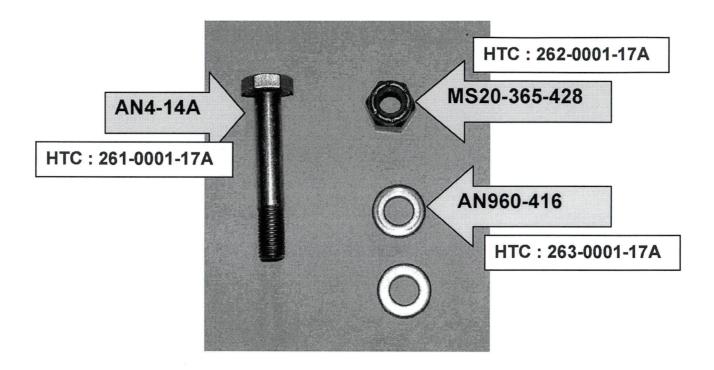
Specific Gravity, 73°F	.944	
Tensile Strength @ Yield, 73°F	3250	psi
Tensile Modulus of Elasticity, 73°F	155,900	psi
Tensile Elongation (at break), 73°F	330	%
Flexural Modulus of Elasticity	107,900	psi
Compresive Strength at 2% deformation	400	psi
Compressive Strength 10% Deformation	1200	psi
Deformation Under Load	6-8	%
Compressive Modulus of Elasticity, 73°F	69,650	psi
Hardness, Durometer (Shore "D" scale)	69	
Izod Impact, Notched @ 73°F	30	ft.lbs./in. of notch
Coefficient of Friction (Dry vs Steel) Static	.17	
Coefficient of Friction (Dry vs Steel) Dynamic	.14	
Sand Wheel Wear/Abrasion Test	95	UHMW=100
Coefficient of Linear Thermal Expansion	11.0	in/in/°F x 10 <sup>-5</sup>
Melting Point (Crystaline Peak)	279-289	°F
Volume Resistivity	>10 <sup>15</sup>	ohm-cm
Surface Resistivity	>10 <sup>15</sup>	ohm-cm
Water Absorption, Immersion 24 Hours	Nil	%
Water Absorption, Immersion Saturation	Nil	%
Machinability Rating	5	1 = easy. 10 = difficult
Sheet Thickness Availability (Off the Shelf)	.250 - 2.0	inches

# Ultra High Molecular Weight Polyethylene

# UHMWPE Typical Properties

Specific Gravity, 73°F	.944	
Tensile Strength @ Yield, 73°F	3250	psi
Tensile Modulus of Elasticity, 73°F	155,900	psi
Tensile Elongation (at break), 73°F	330	%
Flexural Modulus of Elasticity	107,900	psi
Compresive Strength at 2% deformation	400	psi
Compressive Strength 10% Deformation	1200	psi
Deformation Under Load	6-8	%
Compressive Modulus of Elasticity, 73°F	69,650	psi
Hardness, Durometer (Shore "D" scale)	69	
Izod Impact, Notched @ 73°F	30	ft.lbs./in. of notch
Coefficient of Friction (Dry vs Steel) Static	.17	
Coefficient of Friction (Dry vs Steel) Dynamic	.14	
Sand Wheel Wear/Abrasion Test	95	UHMW=100
Coefficient of Linear Thermal Expansion	11.0	in/in/°F x 10 <sup>-5</sup>
Melting Point (Crystaline Peak)	279-289	°F
Volume Resistivity	>10 <sup>15</sup>	ohm-cm
Surface Resistivity	>10 <sup>15</sup>	ohm-cm
Water Absorption, Immersion 24 Hours	Nil	%
Water Absorption, Immersion Saturation	Nil	%
Machinability Rating	5	1 = easy. 10 = difficult
Sheet Thickness Availability (Off the Shelf)	.250 - 2.0	inches

Helitowcart- BearPaw – Bolt, washer and nuts. 2006 04 04





DART AEROSPACE LTD. 1270 Aberdeen Street Hawkesbury, ON, K6A 1K7

Tel: 1 613 632 3336 Fax: 1 613 632 4443

**CANADA** 

e-mail: heli@dartaero.com http://www.dartaero.com

# **INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

ICA-D044-662

# Bearpaw Installation

**ROBINSON R44 MODELS** 

Prepared By:

R. Fuentes

Mechanical Designer

Checked By:

D. Shepherd, P. Eng.

Released By:

D. Shepherd, P. Eng.

ICA-D044-662 ICA Page 3 (4 blank) of 22

### **REVISION RECORD**

Revision No.	Issue Date	Description	Date Inserted	Inserted By
0	02.01.03	New Issue		

Revision:

### **LIST OF EFFECTIVE PAGES**

DESCRIPTION	PAGE(S)	REVISION
COVER	1, 2 BLANK	0
REVISION RECORD	3, 4 BLANK	0
LIST OF EFFECTIVE PAGES	5, 6 BLANK	0
TABLE OF CONTENTS	7, 8 BLANK	0
CHAPTER 0 - INTRODUCTION	9,10 BLANK	0
CHAPTER 0 - INTRODUCTION	11,12 BLANK	0
CHAPTER 4 – AIRWORTHINESS LIMITATIONS	13,14 BLANK	0
CHAPTER 5 – INSPECTION REQUIREMENTS	15,16 BLANK	0
CHAPTER 32 –LANDING GEAR	17,18 BLANK	0
CHAPTER 32 –LANDING GEAR	19,20 BLANK	0
CHAPTER 32 –LANDING GEAR	21,22 BLANK	0

Transport Canada Accepted Allex Pongui Date: 11/2/2002

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ER 4 – AIRWORTHINESS LIMITATIONS (04-00-00)	13
ER 5 - INSPECTION REQUIREMENTS (05-00-00)	15
300 HOUR INSPECTION	15
OVERHAUL REQUIREMENTS	15
ER 32 - LANDING GEAR (32-00-00)	
BEARPAW INSTALLATION	17
BEARPAW REMOVAL	19
WEIGHT AND BALANCE	21
PARTS LIST	21
	SCOPE ARRANGEMENT DISTRIBUTION COMPATIBILITY SYSTEM DESCRIPTION  ER 4 - AIRWORTHINESS LIMITATIONS (04-00-00)  ER 5 - INSPECTION REQUIREMENTS (05-00-00)  300 HOUR INSPECTION OVERHAUL REQUIREMENTS ER 32 - LANDING GEAR (32-00-00)  BEARPAW INSTALLATION

APPENDIX A: APPROVALS

# CHAPTER 0 - INTRODUCTION (00-00-00)

#### 0.1 SCOPE

This manual provides the requirements set forth in Appendix A of FAR Part 27 for the Instructions for continued Airworthiness of the Dart D044-662-011 bearpaws when installed on the Robinson R44 model aircraft. These Instructions for Continued Airworthiness are to be referred to for inspection and maintenance when the Dart bearpaws are installed on, removed from, or in service on the rotorcraft.

#### 0.2 ARRANGEMENT

The manual is arranged in ATA-100 format. This manual is only applicable to R44 model rotorcraft modified with the Dart D044-662-011 bearpaws.

There are no abbreviations, acronyms, or symbolization which are not common to the aviation industry in this manual.

Units of measurement are expressed in Imperial and metric values and all torque values are standard values for the specified fastener combinations as defined in FAA AC 43.13, unless otherwise specified in this document.

No other Instructions for Continued Airworthiness for any product or appliance is inferred or addressed herein.

#### 0.3 DISTRIBUTION

Any changes in the content or revision level of this document will be made available to any owner/operator who possesses this STC when requested in writing. Requests should be made to:

Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 CANADA

Fax: (613) 632 4443 Email: heli@dartaero.com

Additionally, any changes will be sent to the FAA. All changes will be recorded in the Record of Revisions page at the front of this manual.

#### 0.4 COMPATIBILITY

Compatibility of this installation with the aircraft is the **responsibility of the installer.** Ensure that this installation does not conflict with a previous modification.

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00-00-00

#### 0.5 SYSTEM DESCRIPTION

The Dart D044-662-011 Bearpaws mount to the aft end of the R44 skidtubes and are intended to provide better stability when the rotorcraft lands in soft terrain. One Bearpaw is installed on each skidtube and is attached with clamps and standard hardware.

The components in the Dart Bearpaw Installations are as defined in the table in section 32.4 of this document.

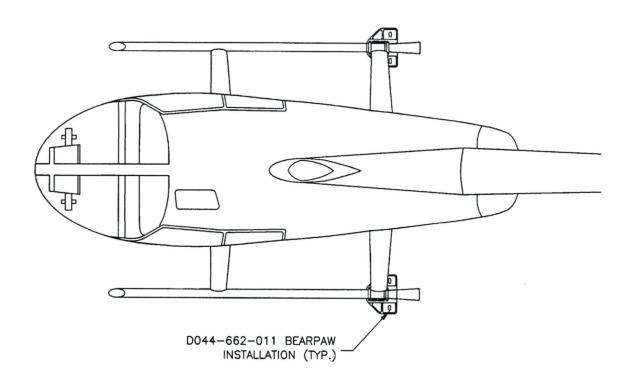


Figure 0-1: Bearpaw Installation

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ICA Page 13 (14 blank) of 22

# CHAPTER 4 - AIRWORTHINESS LIMITATIONS (04-00-00)

No airworthiness limitations associated with this type design change.

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04-00-00

Revision: 0

Page 1 (2 blank) of 2

# **CHAPTER 5 – INSPECTION REQUIREMENTS (05-00-00)**

#### 5.1 300 HOUR INSPECTION

(To coincide with landing gear inspection or if damage found on daily inspection)

Note: For the convenience of scheduling maintenance, the tolerance for scheduled inspection intervals is +/-10% (+/- 30 hours). In each case, the subsequent interval will be adjusted to re-establish the original schedule. When an inspection is done more than 10% early, subsequent inspections will be advanced as required not to exceed the maximum tolerance.

- 1. Remove the bearpaws per chapter 32 of these instructions and inspect the bearpaws and clamps for damage and/or wear.
- 2. In the shaded region of Figure 5-2, the bearpaw may be worn by a maximum of 0.250" (6.36mm) down to the minimum allowable values specified in Table 5-1. Outside the shaded region of Figure 5-2, (ie. in the pockets) it is acceptable to have worn areas up to a maximum of 0.125" (3.18mm) deep over a maximum area of 2 sq. in (1290 sq. mm). The edge of one damaged region must be a minimum of 2" (51mm) away from the edge of next nearest damaged region.

Dimension	Nominal	Max. Allowable	Min. Allowable
	Thickness	Wear	Dimension
Α	0.375 in	0.25 in	0.125 in
	9.53 mm	6.36 mm	3.18 mm
В	0.525 in	0.25 in	0.275 in
	13.34 mm	6.36 mm	6.99 mm
С	0.900 in	0.25 in	0.650 in
	22.86 mm	6.36 mm	16.51 mm
D	0.950 in	0.25 in	0.700 in
	24.13 mm	6.36 mm	17.78 mm

Table 5-1: Bearpaw Damage Limits

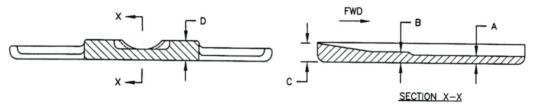


Figure 5-2: Damage Limit Diagram

- 3. Cracks are acceptable in the unshaded portion of Figure 5-2 as long as they are restricted to the pockets of the bearpaws. Cracks that penetrate the stiffening ribs of the unshaded regions are unacceptable. Stop drill all cracks up to 0.50" (12.7mm) long with ∅0.188" (∅4.78mm) drill.
- 4. Report all damage in excess of indicated limits to Dart Aerospace Ltd. for evaluation and disposition.
- 5. Replace damaged or worn parts per chapter 32 of these instructions.
- The bearpaws should be re-installed per chapter 32 of these instructions.

### 5.2 OVERHAUL REQUIREMENTS

NO COMPONENT OVERHAUL REQUIRED FOR THIS DESIGN CHANGE.

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05-00-00

# CHAPTER 32 – LANDING GEAR (32-00-00)

### 32.1 BEARPAW INSTALLATION

To install the Dart Bearpaw on the R44 skidtube:

- Jack up the aircraft. Ensure the skidtubes are serviceable. Remove aft wearplate and reinstall screws.
- 2. Position D3075-1 Bearpaw on the aft end of each skidtube so that the D2882 clamps are located as shown in Figure 32-1.
- 3. The D3075-1 Bearpaw may be relieved to clear wearshoe mounting screws provided the relief leaves 0.375" (9.53mm) thickness.
- 4. Attach the D2882 clamps with the hardware shown in Figure 32-2. CAUTION: The torque on the nuts should be limited to 20 in-lb (2.3 Nm).

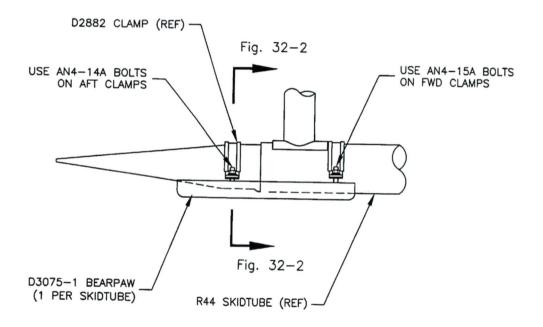
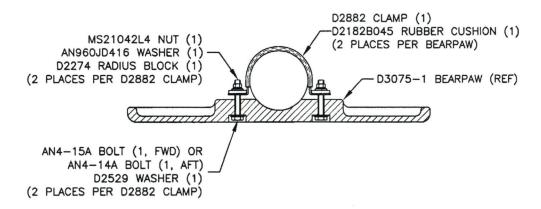


Figure 32-1: Bearpaw Installation

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\* See note 5 Figure 32-2: Bearpaw Installation (section view)

- Additional AN960JD416 washers may be installed under the nuts to ensure 1.5-4 threads in 5. safety on the bolts. Although not generally necessary, it is also acceptable to replace the AN4-14A/AN4-15A bolts with longer or shorter AN4 bolts, if required.
- Lower the aircraft.

#### 32.2 BEARPAW REMOVAL

- 1. Jack up the aircraft.
- 2. Loosen the clamp bolts and remove the bearpaws and clamps. Ensure the skidtubes are serviceable.
- 3. If permanently removing the bearpaws, re-install aft wearplate.
- 4. Lower the aircraft.

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# 32.3 WEIGHT AND BALANCE

		LATERAL		LONGITUDINAL	
Installation	Weight	Arm	Moment	Arm	Moment
D044-662-011 Bearpaw Installation on model R44 aircraft	4.6 lb 2.10 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	128.1 in 3.25 m	589.3 in-lb 6.83 m-kg

# 32.4 PARTS LIST

Revision: 0

Qty	Part Number	Description		
Х	D044-662-011	BEARPAW INSTALLATION		
4	D2182B045	Rubber Cushion		
8	D2274	Radius Block		
8	D2529	Washer		
4	D2882	Clamp		
2	D3075-1	Bearpaw		
4	AN4-14A	Bolt		
4	AN4-15A	Bolt		
8	AN960JD416	Washers		
8	MS21042L4	Nut (or MS21042-4)		